TO TAMES LOCATION

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov www.ct.gov/csc

Elizabeth H. Lankenau, AICP Planner Kise Straw & Kolodner, Inc. 123 South Broad Street, Suite 1270 Philadelphia, PA 19109

RE: EM-CING-064-043-155-094-060609 - New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunications facilities located at 11 Mountain Street, Hartford; 2 Prestige Park Drive, East Hartford; 125 South Main Street, West Hartford; and 123 Costello Road, Newington, Connecticut.

Dear Ms. Lankenau:

September 6, 2006

At a public meeting held on August 31, 2006, the Connecticut Siting Council (Council) acknowledged your notice to modify the existing Hartford telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the condition that the tower base plate is re-grouted and the coaxial cables are routed inside the tower as recommended in the structural analysis letter sealed by Carlo F. Centore, P.E. The East Hartford, West Hartford, and Newington proposals received prior acknowledgement on June 27, 2006.

The proposed modifications are to be implemented as specified here and in your revised notice dated August 22, 2006, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Colin C. Tait
Vice Chairman

CCT/MP/laf

c: The Honorable Eddie A. Perez, Mayor, City of Hartford Roger J. O'Brien, Director of Planning, City of Hartford Christine Farrell, T-Mobile



Architects

Planners

Historians

Archaeologists

James Bennett Straw, AIA Harvey D. Kolodner, MBA

ORIGINAL

22 August 2006

Mr. Colin C. Tait, Chairman, and Members of the Connecticut Siting Council 10 Franklin Square New Britain, CT 06051



CONNECTICUT SITING COUNCIL

RE: Notice of Exempt Modification -One (1) Existing Telecommunications

Tower Facilities in Hartford County - REVISED

Site 1: 11 Mountain Street (EM-CING-064-043-155-094-060609)

Dear Chairman Tait and Members of the Council:

Kise Straw & Kolodner Inc., in association with Network Building & Consulting, LLC, submits this notice of intent to modify existing telecommunications facilities. New Cingular Wireless PCS, LLC ("Cingular") proposes to remove and replace telecommunications antennas and associated equipment located on an existing facility in the above-referenced municipalities. Cingular operates under licenses issued by the Federal Communications Commission (FCC) to provide cellular and PCS mobile telephone service in the areas to be served by the proposed installations.

Please accept this letter and attachments as notification to the Council, pursuant to Regulations of Connecticut State Agencies (RCSA) Section 16-50j-73. This submission will demonstrate that the proposed changes fall within the limits of an exempt modification as described under the RCSA Section 16-50j-72(b)(2).

In accordance with RCSA Section 16-50j-73, the chief elected officials will receive notification of the work proposed at locations within their jurisdiction.

Attached you will find summary sheets detailing the planned changes, including power density calculations reflecting the change in the effect of Cingular's operations at each site. Also included is documentation of the structural sufficiency of each tower to accommodate the revised antenna configuration.

The planned changes to these facilities fall within those activities explicitly provided for in RCSA Section 16-50j-72(b)(2). As such, the proposed work does not result in any substantial adverse environmental effect:

James Bennett Straw, AIA
Harvey D. Kolodner, MBA

James Nelson Kise, AIA/AICP/PP
Scott W. Killinger, AIA

John R. Gibbons, AIA/AICP
Philip E. Scott, EA

Suzanna Barucco

Katherine Bottom, LEED

LaVern Browne

Johnette Davies

Petar D. Glumac, Ph.D

Douglas S. Heckrotte, RA/LEED

Jody Holton, AICP

Marian Maxfield Hull, AICP/PP

Kise Straw & Kolother Inc.
123 South Broad St.
Suite 1270
Philadelphia, PA 19109
(215) 790-1050 FAX (215) 790-0215
www.kskl.com

- 1. The proposed work does not affect the height of the structure.
- 2. The proposed changes do not affect the existing property boundaries. All proposed work will occur on the property controlled by Cingular.
- 3. The proposed work will not increase noise levels at the site boundary by six (6) decibels or more.
- 4. Addition of the UMTS broadcasts will not increase the exposure to radio frequency electromagnetic energy, measured at the base of the tower, to or above the standard adopted by the state of Connecticut and the FCC. The power density tables provided for each facility summarize the cumulative results for a point of interest at the tower's base of the "worst-case" exposure calculations resulting from all carriers co-located on this tower. The calculations are in accordance with the Federal Communications Commission's Office of Engineering and Technology Bulletin No. 65 (1997), and for simplicity, an assumption is made that the antennas are all pointed down, thus focusing their energy at the tower's base.

For the foregoing reasons, Cingular respectfully submits that proposed changes at the these facilities constitute an exempt modification under RCSA Section 16-50j-72(b)(2).

Please do not hesitate to call me at 215.790.1050 ext. 138 with questions concerning this notice. Thank you for your consideration of this matter.

Sincerely,

Elizabeth H. Lankenau, AICP

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Planner

Attachments

cc: Honorable Eddie A. Perez, Mayor, City of Hartford

11 Mountain Street, Hartford, CT

Summary Sheet Project Location Map Site Plan and Elevation Structural Analysis Elected Official Letter

CINGULAR WIRELESS Proposed Modifications

Site Address:

11 Mountain Street, Hartford, CT

Type of Existing Facility:

100' high monopole with a 59' x 64' compound; within

the compound, Cingular has a 20' x 24' shelter

Antenna Configuration:

Center line – 103' above ground level

Current unit:

DUO4-8670; specification attached

Proposed unit:

The existing antennas will be replaced with six (6)

Powerwave 7770 units; specification attached

TMA Configuration:

To be placed at same height as antenna

Proposed unit:

Six (6) units to remain; six (6) new LGP 214nn units to

be added; specification attached

Coaxial Cables:

Existing 7/8" cables to be removed; add twelve (12) 1

5/8" cables

Other Work:

Re-grout tower base plate according to Structural

Analysis (attached); add one (1) Ericsson RBS 3206

equipment cabinet inside existing shelter

Power Density:

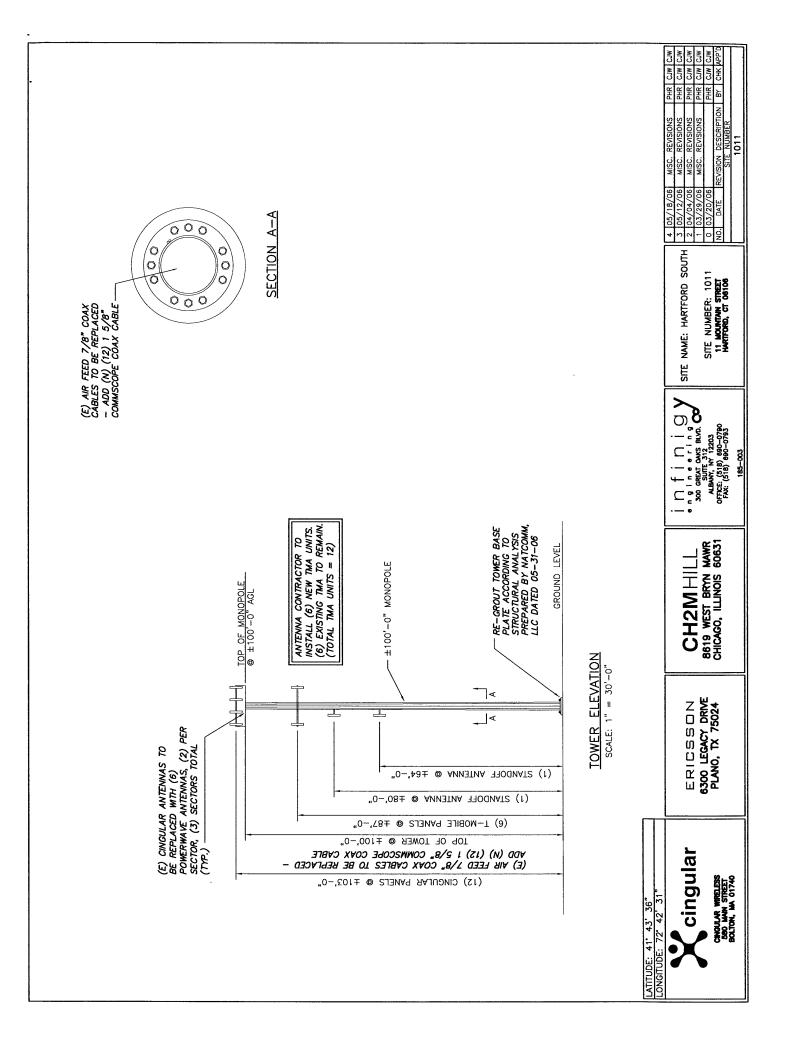
As the table demonstrates, the cumulative worst-case exposure would be approximately 40.28% of the ANSI/IEEE standard, as calculated for mixed frequency sites. Total power density levels resulting from Cingular's use of the monopole facility would be within applicable standards.

Site #	1011							
Carrier	Antenna Height (ft)	Freq. (MHz) For Limit	# of Channels	W ERP/Channel (ref 1/2-w dipole)	W EIRP/Sector	Power Density (µW/cm²)	FCC Limit (µW/cm²)	Percent of Limit (%)
Cingular UMTS	103	1935.0	1	500.0	820.0	17.3	1000	1.73%
West Hartford	80		-	-	-	-	-	16.36%
Cingular TDMA	103	880.0	16	100.0	2624.0	55.3	587	9.43%
Cingular 800	103	880.0	2	296.0	970.9	20.5	587	3.49%
Cingular 1900	103	1900.0	2	427.0	1400.6	29.5	1000	2.95%
T-Mobile	87	1900.0	8	166.4	2183.4	63.3	1000	6.33%
TOTAL								40.28%

Structural Analysis:

Please see attachment.







Consulting Engineers

June 2, 2006

Mr. Thomas Sun, AIA CH2M Hill Communications Group 8619 W. Bryn Mawr, Suite 615 Chicago, IL 60631

Re: Level 1 Structural Evaluation Cingular Site #1011 Mountain Rd., Hartford, CT 06106

Natcomm Project No. 06500.Co05-1011

Dear Mr. Sun,

We have reviewed the proposed Cingular UMTS antenna upgrade at the above referenced site. The purpose of the review is to determine the adequacy of an existing 104' AGL monopole to support the proposed antennas. The review considered the effects of wind load, dead load, ice load and seismic forces in accordance with TIA/EIA-222-F and Connecticut State Building Code. Site assessment information obtained by Natcomm personnel on May 18, 2006 was used as reference material.

The existing antenna configuration is as follows:

- <u>Cingular</u>: Twelve (12) CSS DUO1417-8686 panel antennas on a standard platform at an elevation of 104' AGL.
- <u>T-Mobile</u>: Six (6) EMS panel antennas on a standard low profile platform at an elevation of 94' AGL.
- <u>Town:</u> One (1) panel antenna mounted to a standard side arm standoff at an elevation of 74' AGL.
- <u>Town:</u> One (1) panel antenna mounted to a standard side arm standoff at an elevation of 64' AGL.

The proposed modified antenna loading is as follows:

• <u>Cingular:</u> Six (6) Powerwave 7770.00 panel antennas w/ twelve (12) Powerwave LGP21401 TMA's on a standard low profile platform in lieu of the existing twelve (12) panel antennas at elevation of 104' AGL.

At the time of our site visit the grout below the tower base plate was found to be severely deteriorated and in need of repair.

Based on the information provided, re-grouting of the tower base plate and considering the interior routing of coaxial cables and reduced antenna loading, the existing structure will not exceed its original design capacity and meets the requirements of the TIA/EIA-222-F Standard considering the basic wind speed (fastest mile) of 80 mph for Hartford County.

In conclusion, the existing 104 if monopole is adequate to support the proposed Cingular UMTS antenna upgrade and related equipment. If there are any questions regarding this matter, please feel free to call.

Carlo F. Centore, P. Project Manager

(203) 488-0580 • Fax (203) 488-8587 • www.natcommllc.com • 63-2 North Branford Rd. Branford, CT 06405

Architects Planners Historians Archaeologists

James Bennett Straw, AIA

Harvey D. Kolodner, MBA

22 August 2006

Honorable Eddie A. Perez Mayor, City of Hartford 550 Main Street Hartford, CT 06103

RE: Notice of Exempt Modification – Existing Cingular Telecommunications Tower Facility at 11 Mountain Street, Hartford, Connecticut (REVISED)

Dear Mr. Perez:

New Cingular Wireless PCS, LLC ("Cingular") proposes to remove and replace telecommunications antennas and associated equipment located on an existing tower at the above-referenced location. The facility is now controlled and operated by Cingular whose corporate office is located at 500 Enterprise Drive, Rocky Hill, CT 06067.

Proposed Modifications

Cingular proposes to add one (1) new equipment cabinet in an existing shelter within the existing confines of the compound. In addition, Cingular will remove the existing antennas and replace them with a total of six (6) new antennas, located at an existing centerline height of approximately 103' above ground level. Cingular will replace the existing coaxial cables with twelve (12) new 1 5/8" diameter cables. Cingular will also remove the existing tower mounted amplifiers and affix twelve (12) new tower mounted amplifiers to the structure at the same height as the antennas.

In summary, the final antenna configuration at 11 Mountain Road will include:

- 6 antennas,
- 12 coaxial cables, and
- 12 tower mounted amplifiers.

James Nelson Kise, AIA/AICP/PP
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www.ksk1.com

A structural evaluation has demonstrated that the monopole will be structurally capable of supporting the proposed Cingular telecommunications equipment once the proposed modifications are complete.

Statutory Considerations

The proposed work will not affect the height of the existing structure, nor will it alter the existing property boundaries. Furthermore, the proposed work will not increase noise levels at the facility's site boundary by six (6) decibels or more. Operation of additional antennas will not increase the radio frequency electromagnetic radiation power density, measured at the monopole base, to or above the standard adopted by the State of Connecticut and the Federal Communications Commission.

A Notice of Exempt Modification has been filed with the Connecticut Siting Council (CSC) as required by the Regulations of Connecticut State Agencies (RCSA), Section 16-50j-73. Please accept this letter as notification to the City of Hartford under Section 16-50j-73 that the proposed work constitutes an exempt modification pursuant to RCSA Section 16-50j-72(b)(2).

Should you have any questions or require additional information about the plans or the CSC's procedures, please do not hesitate to contact me (215.790.1050 ext. 138) or Mr. Derek Phelps, Executive Director, Connecticut Siting Council (860.827.2935).

Sincerely,

Elizabeth H. Lankenau, AICP

harrena ___

Planner

Attachements

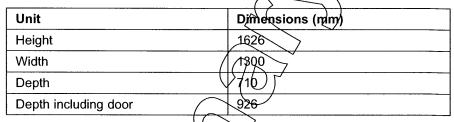
Specifications for Proposed New Equipment

Ericsson RBS Equipment Cabinet Powerwave 7770 Antenna Powerwave LGP 214nn Tower Mounted Amplifier

3 Dimensions

This section describes the physical characteristics of the RBS: dimensions, weight, and color.

Table 1 The RBS Dimensions



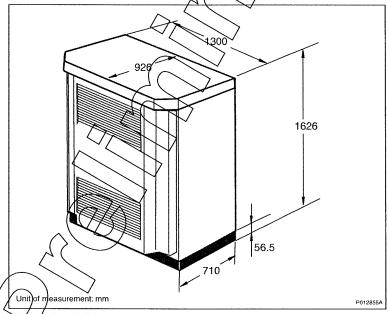


Figure 2 RBS 3106 Dimensions

The RB\$ weight is shown in the table below.

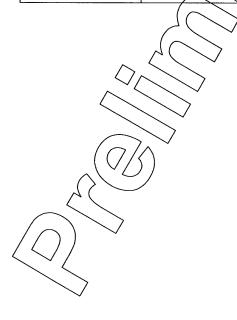
Table 2 The RBS Weight

Unit	Weight (kg)
RBS fully equipped excluding batteries	560
RBS fully equipped including batteries	850
RBS fully equipped including batteries and future expansion of hardware (not yet available)	875
Installation frame	12

The RBS color is shown in the table below:

Table 3 The RBS Color

Color	Color Standard
Grey	RAL 7036
Green	NCS 8010-6-10 Y



Dual Broadband Antenna

90° 1.4 m MET Antenna

ZHQ 02700/2/096-908

Part Number: 7770.00

Horizontal Beamwidth: 90° Gain: 13.5/16 dBi

Electrical Downtilt: Adjustable Connector Type: 7/16 female

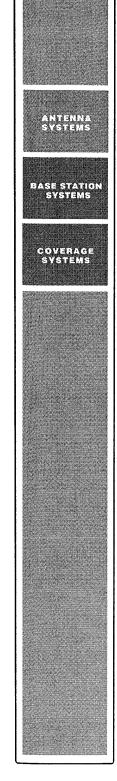
The Powerwave dual band dual polarized broadband antenna has individual adjustable electrical downtilt per band (upgradeable to Remote Electrical Tilt (RET). Four connector ports allow separate tilts on each frequency band and ensure the use of diversity concepts. The phase shifter technology, based on a patented sliding dielectric, minimizes intermodulation distortion and maximizes efficiency. The slant +/- 45° dual polarization system provides the independent fading signals needed for achieving top-quality coverage via diversity concepts. The Powerwave Broadband antenna design is based on a patented stacked aperture-coupled patch technology, which provides high isolation performance and a wide VSWR bandwidth. The antennas have superior radiation patterns due to a unique reflector design which provides a very small variation of the –3dB horizontal beam width over the frequency band as well as a high front-to-back ratio.



Key Benefits

- · Excellent broad- and multi-band capabilities
- · Polarization purity makes good diversity gain
- Excellent pattern performance and high gain over frequency
- · High passive intermodulation performance
- · Light, slim and robust design

Preliminary



Tower Mounted Amplifier

Dual Band 1900 MHz with 850 MHz Bypass

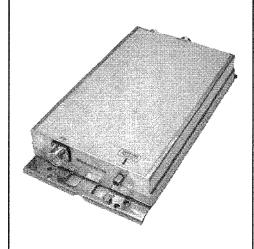
Part Number: LGP 214nn Up-link: 1850-1910 MHz Down-link: 1930-1990 MHz Bypass: 824-894 MHz

Gain: 12 dB

Noise Figure: < 1.7 dB

The Powerwave® TMA-DD 1900/850 is a dual band Tower Mounted Amplifier (TMA) to be installed near the antenna. Deployed in an AMPS, GSM, GPRS, EDGE and CDMA network it will increase capacity and coverage as well as extend the battery life time for the handsets. The TMA System will provide enhanced coverage and improved up-link signal quality. Appropriate for new rollouts by optimizing coverage with a reduced number of BTSs or as an upgrade to existing BTSs for enhancing the existing coverage.

Extended band TMA facilitates simplified logistics, especially when the frequency bands are scattered. The unit comprises of high Q band-pass filters, dual balanced low noise amplifiers with circuits for active bias, supervision, alarms and lightning protection circuit. The Powerwave patented design with all active components integrated within the filter body provides an extremely reliable, compact and lightweight TMA solution. The vented enclosure design is employed to prevent the effect of condensation, thereby guaranteeing long, reliable, maintenance-free service in all environmental conditions. These TMAs offer an easy to install, maintenance free, cost effective solution for coverage enhancement and increased quality in mobile communication networks.



Key Benefits:

- 850 MHz Bypass
- Improved Network Quality
- Increased Coverage
- State of the Art Performance
- Excellent Power Handling
- Low Tx Loss
- Exceptional Reliability



Rev. A Pg. 1 of 2

D031-08422



Tower Mounted Amplifier



NTS 0980000

Technical Specifications

Product Number 850 MHz

LGP214nn

Bypass (MHz)

824-894

Return loss* (dB)

> 20

Insertion loss* (dB)

< 0.3

1900 MHz

Up-link

Frequency range, full band (60 MHz)

1850-1910

Nominal gain (dB) Return loss* (dB)

12 > 20

Noise figure* (dB)

< 1.7

Output 3rd order Intercept Point* (dBm)

> +23

Down-link

Frequency range, full band (60 MHz)

1930-1990

Insertion loss* (dB) Return loss* (dB)

< 0.6

Intermodulation

2 Tx@x43 dBm (dBc)

> 20 <-158

Alarm Functionality Power Consumption

Two levels, individually supervised LNAs

1.2 W

@12 VDC

All specifications subject to change without notice. Please contact your Powerwave representative for complete performance data.

Mechanical Specifications

Size,W x H x D (without mounting plate)

Weight

Color

Housing

RF-connectors

Mounting kit

Temperature range

MTBF Safety

Ingress protection, IP 65

Environmental

EMC

235 x 366 x 66 mm (9.2 x 14.4 x 2.6 in)

6.4 kg (14.1 lbs)

Off white (NCS 1502-R)

Aluminum

DIN 7/16 female.

Mounting kit for pole and wall is included

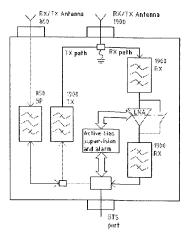
-40 °C to +65 °C (-40 °F to +149 °F)

>1 million hours UL 60 950

EN 60 529

ETS 300 019

FCC Part 15



Corporate Headquarters

Powerwave Technologies, Inc. 1801 East St. Andrew Place Santa Ana, CA 92705 USA

Tel: 714-466-1000 Fax: 714-466-5800 www.powerwave.com Main European Office Antennvägen 6 SE-187 80 Täby

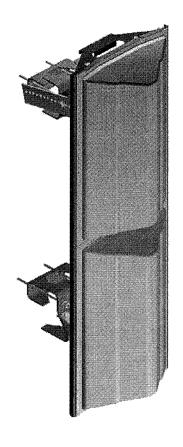
Sweden Tel: +46 8 540 822 00 Fax: +46 8 540 823 40 Main Asia-Pacific Office 23 F Tai Yau Building 181 Johnston Road Wanchai, Hong Kong Tel: +852 2512 6123

Fax: +852 2575 4860

Specifications for Existing Antennas



Dual Band Antenna DUO1417-8686



86 & 86 Azimuth Beams 15 & 7 Elevation Beams 14.0 & 16.0 dBi Gain

- ➤ PCS & Cellular in One Package
- > Independent Control of Electrical Beam Downtilt
- ➤ High Power Handling Capability
- > Anti-Corrosion Design for Superb IM Performance
- > Available With Optional Internal Dual Band Combiner



Directing our energies for you.

Gain

VSWR

Frequency Range

Dual Band Antenna DUO1417-8686

Electrical Specifications

Electrical Downtilt Options

VSWR (with -i option)

Front-to-Back at Horizon

806-900 MHz 14.0 dBi 0, 2, 4 or 6 Degrees 1.35:1 Maximum 1.40:1 Maximum > 25 dB

Cellular

PCS

1850-1990 MHz

0 or 4 Degrees

1.35:1 Maximum

1.40:1 Maximum

16..0 dBi

 $> 30 \, dB$

	20 02	50 GB
Upper Side Lobe Suppression	< -17 dB	< -18 dB
Elevation Beam (3-dB Points)	15 Degrees	7 Degrees
Azimuth Beam (3-dB Points)	86 Degrees	86 Degrees
Polarization	Vertical	Vertical
Impedance	50 Ohms	50 Ohms
Power Input Rating	500 CW	200 CW
Intermodulation Specification	<-110dBm at 2x10W	<-110dBm at 2x10W

Mechanical Specifications

Input Connectors (female)
Antenna Dimensions
Antenna Weight
Antenna Weight (w/opt. 'i')
Bracket Weight
Lightning Protection
RF Distribution

Radome

Weatherability Radome Water Absorption

Environmental Wind Survival

Front Wind Load at 100 mph Front Flat Plate Equivalent

Mounting Brackets

Mechanical Downtilt Range

Clamps/Bolts

Two Back Mounted 7/16 DIN (Silver Finish) 48.4 x 14 x 9 Inches (10.7" deep with option 'i')

20.3 lbs 32.0 lbs 10.5 lbs

Direct Ground

Cellular: Silver Plated Brass PCS: Printed Microstrip Substrate Ultra High-Strength Luran

UV Stabilized, ASTM D1925 ASTM D570, 0.45% MIL-STD-810E

150 mph 124 lbs

2.54 sq-ft. (c=2)

Fits 2.5 to 3 Inch Schedule 40 Pipe 0-12 Degrees in 1 Degree Increments Hot Dip Galvanized Steel/Stainless Steel

Ordering Information

Model **Options** DUO1417-8686-xy x=Electrical Downtilt at 800 MHz in Degrees (0, 2, 4 or 6) y=Electrical Downtilt at 1900 MHz in Degrees (0 or 4) DUO1417-8686-xyi i=Dual Band Combiner included as an internal device

> CSS Antenna, Inc. Tel:410-612-0080 Fax: 410-612-0336 www.cssantenna.com